

analyzing means receiving said output signals from said first and second detectors for calculating the speed and acceleration of the motor vehicle.

Amend claim 2 as follows:





calculating means receiving said time measurements from said measuring means for calculating an acceleration of the motor vehicle based on said predetermined distance.

10. (New) Apparatus for determining speed and/or acceleration of a vehicle comprising:

at least one detector receiving at least a portion of the projected radiation; and



17. (New) The apparatus of claim 10, wherein said at least one radiation source is arranged on one side of the vehicle's path and said at least one detector is arranged on an opposite side of the vehicle's path.

18. (New) A method for determining speed and/or acceleration of a vehicle comprising the steps of:

projecting radiation across the vehicle's path;

identifying a first time when a first portion of the vehicle breaks the projected radiation at a first location;

identifying a second time when the first portion of the vehicle breaks the projected radiation at a second location; and

calculating the vehicle's speed using the first and second times and a predetermined distance between the first location and the second location.

19. (New) The method of claim 18, further comprising the steps of:

identifying a third time when a second portion of the vehicle breaks the projected radiation at the first location;

identifying a fourth time when the second portion of the vehicle breaks the projected radiation at the second location; and

calculating the vehicle's speed and/or acceleration using the first, second, third, and fourth times and the predetermined distance between the first location and the second location.

20. (New) The method of claim 18 further comprising the steps of:

identifying a fifth time when the first portion of the vehicle leaves the projected radiation at the first location;

identifying a sixth time when the first portion of the vehicle leaves the projected radiation at the second location;

identifying a seventh time when the second portion of the vehicle leaves the projected radiation at the first location;